

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P554752

Luminaire Tested: **FUSL-12-2-LD4-2HI-40-UNV-81-84-EDD-90**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P554752  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FUSL-12-2-LD4-2HI-40-UNV-81-84-EDD-90  
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

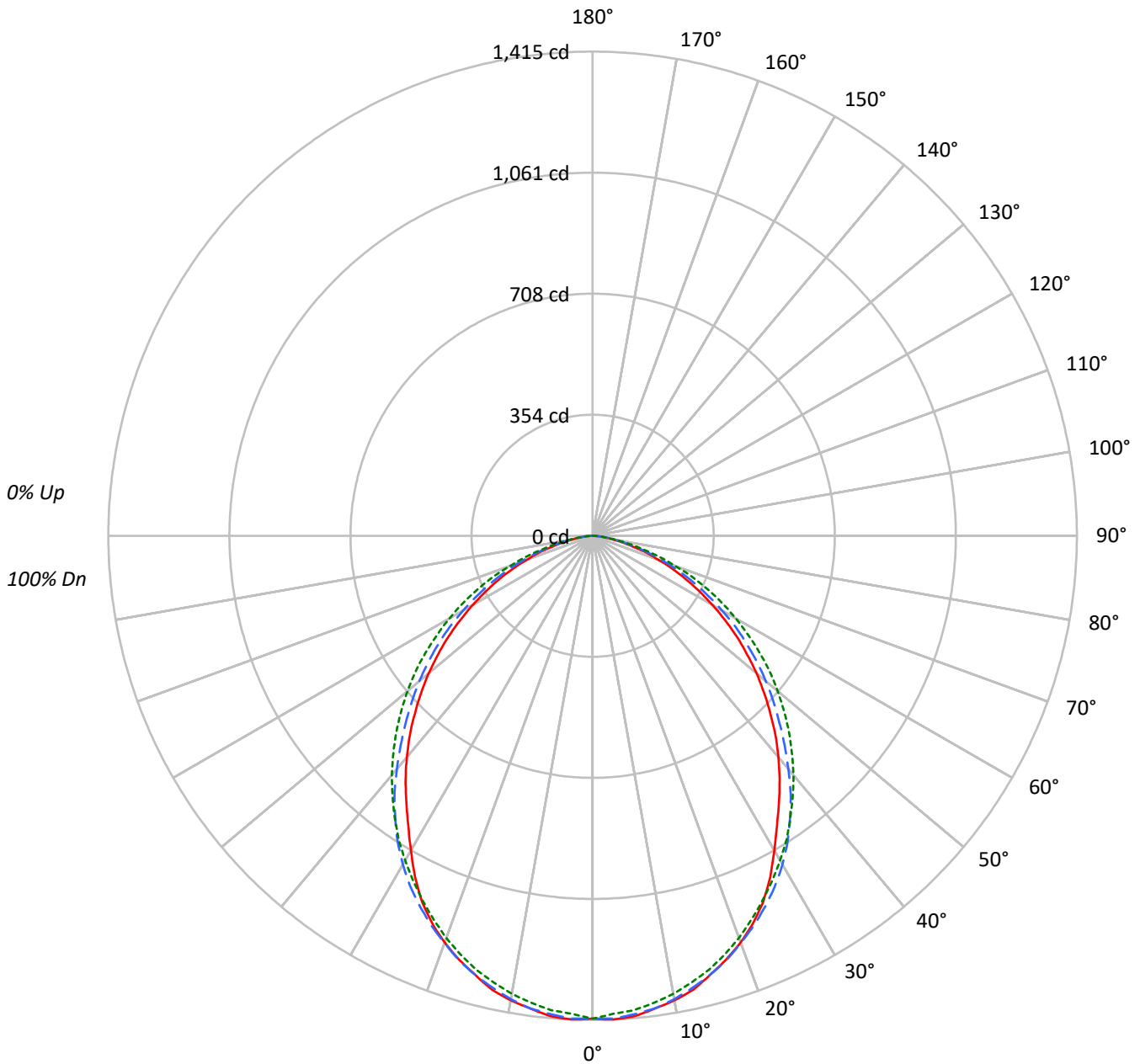
Lumens per Lamp: N/A  
Luminaire Lumens: 3263.0 lumens  
Efficiency: N/A  
Efficacy: 75.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86																			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73																			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63																			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54																			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47																			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42																			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37																			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34																			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30																			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7595	7595	7595
5°	7615	7583	7518
10°	7534	7513	7427
15°	7400	7400	7316
20°	7244	7253	7160
25°	7005	7092	6979
30°	6597	6893	6809
35°	6233	6608	6618
40°	5930	6250	6414
45°	5591	5872	6173
50°	5234	5534	5910
55°	4828	5148	5590
60°	4348	4697	5199
65°	3838	4177	4730
70°	3199	3558	4017
75°	2514	2840	3146
80°	1798	1999	2219
85°	1173	1173	1105



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.9	4.1
10°-20°	373.3	11.4
20°-30°	545.4	16.7
30°-40°	619.1	19.0
40°-50°	597.7	18.3
50°-60°	493.1	15.1
60°-70°	328.3	10.1
70°-80°	146.9	4.5
80°-90°	26.3	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1051.6	32.2
0°-40°	1670.7	51.2
0°-60°	2761.5	84.6
0°-90°	3263.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3263.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1411	1411	1411	1411	1411	
5°	1410	1409	1404	1396	1392	133
15°	1328	1332	1328	1322	1313	374
25°	1180	1189	1194	1186	1175	540
35°	949	962	1006	1011	1007	594
45°	735	747	772	807	811	567
55°	514	523	549	579	596	459
65°	301	310	328	351	371	299
75°	121	127	137	143	151	132
85°	19	19	19	18	18	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1411.2	1411.2	1411.2	1411.2	1411.2
2.5°	1415.0	1415.5	1412.2	1403.6	1398.2
5°	1409.5	1409.0	1403.6	1396.0	1391.6
7.5°	1393.8	1394.9	1393.3	1382.4	1376.5
10°	1378.6	1379.2	1374.8	1366.2	1359.1
12.5°	1359.1	1358.6	1352.6	1348.3	1336.9
15°	1328.2	1331.5	1328.2	1322.3	1313.0
17.5°	1298.4	1298.4	1300.6	1290.3	1283.2
20°	1264.8	1266.4	1266.4	1258.3	1250.2
22.5°	1225.8	1230.6	1232.3	1223.6	1213.8
25°	1179.7	1188.9	1194.3	1185.6	1175.3
27.5°	1123.8	1137.9	1154.2	1147.7	1136.3
30°	1061.5	1082.1	1109.2	1103.8	1095.6
32.5°	1002.4	1023.0	1060.4	1058.2	1053.9
35°	948.7	961.7	1005.7	1011.1	1007.3
37.5°	897.8	909.7	950.9	963.4	960.1
40°	844.1	857.1	889.6	911.9	912.9
42.5°	791.0	803.4	830.0	862.0	862.0
45°	734.6	747.1	771.5	806.7	811.0
47.5°	679.3	692.3	716.2	751.4	758.4
50°	625.1	637.0	660.9	695.0	705.9
52.5°	568.7	581.7	605.0	636.5	652.2
55°	514.5	523.2	548.6	579.0	595.8
57.5°	458.1	466.2	495.0	521.0	538.3
60°	403.9	414.2	436.4	463.0	483.0
62.5°	351.8	362.7	381.7	405.0	427.7
65°	301.4	309.6	328.0	351.3	371.4
67.5°	252.6	259.7	278.1	294.4	315.5
70°	203.3	212.5	226.1	241.8	255.3
72.5°	163.7	167.5	178.9	190.3	204.4
75°	120.9	127.4	136.6	143.1	151.3
77.5°	86.7	90.5	96.0	101.4	109.0
80°	58.0	59.6	64.5	65.6	71.6
82.5°	35.2	36.3	37.4	37.9	40.1
85°	19.0	19.0	19.0	17.9	17.9
87.5°	10.8	10.8	9.2	7.6	5.4
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)